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## Capital Structure of an Enterprise Compared to Its Financial Security on the Basis of the Telecommunication Industry in Poland

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### **Abstract:**

**Purpose:** The aim of the paper is to verify a hypothesis stating that entities from the highly capital-intensive industries are more prone to the loss of financial security including loss of liquidity.

**Design/Methodology/Approach:** the asset to capital structure analysis as well as the study of the interrelations in the scope of financial security and short-term liquidity, has been based on the data collected in telecommunication industry enterprises which are listed on Warsaw Stock Exchange.

**Findings:** the formulated hypothesis has been positively verified. Telecommunication industry enterprises, although not being homogenous, are characterised by several similarities regarding capital structure and its consequences, it especially regards their influence on the potential financial security of the enterprises. The evaluation of their potential financial security is negative.

**Practical implications:** The research conducted indicates that the higher the share of fixed assets in total assets, the more difficult it is for an enterprise to keep the required asset to capital proportions and therefore it needs to be more careful in monitoring its financial situation, especially its financial liquidity.

**Originality/value:** A high risk, capital-intensive business may strengthen the sector monopoly tendencies, which needs to be constantly monitored by appropriate state institutions.

**Keywords:** Financial Management, Liquidity Management, Financial Security, Community Security, Enterprise.

**JEL codes:** G10, G32, H56, M54, L53.

**Paper type:** A research paper.

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## **1. Introduction**

Modern enterprises function within the dynamically changing market realities, which require not only the operational flexibility but also an appropriate financial structure that secures its activity and minimises the financial risk. The balance-sheet structure – consisting of both assets and sources of capital – is the foundation of the enterprise's financial stability. Its proper construction is of a crucial value for the internal security, making the current liabilities and investment plans possible, but also for the security of the business environment, which encompasses the business partners, lawyers and local society.

The research related to asset to capital relations in enterprises are vastly developed in financial and managerial literature as the asset structure and sources of their financing is of a crucial importance for management stability and effectivity. Among the most important research there are:

- Theory of Capital Structure formulated by Franco Modigliani and Merton Miller (1958) – classical research regarding the capital structure and its influence on the enterprise value. Modigliani and Miller formulated the theoretical basis for optimal capital structure suggesting that on certain conditions the asset to capital relations do not influence the value of the enterprise. In reality, however, with the tax cost and bankruptcy risk included, the research revealed the importance of the balance between capital and debt.
- Static Trade-Off Theory – in following years the research developed and the trade-off theory suggested that enterprises aim at optimal capital structure, balancing the cost of bankruptcy with tax benefits connected with debt. On that basis it could be stated that excessive debt increases the financial risk, diminishing the safety of an enterprise, whereas the excessive share of equity may lead to profitability limitations (Myers, 1984).
- Pecking Order Theory by Myers and Majluf (1984) – assumes that enterprises prefer to finance their assets internally (with own resources), and only secondly with debt, treating the issue of new shares as a last resort. It is a result of an asymmetry of information and expenses connected with equity issuance, which directly influences the capital and asset decisions and sources of their financing.

The understanding of asset to capital relations allows the enterprises to manage their finances and resources more effectively building the value of the business (Setiadharna, Machali, 2017). It can especially help with:

- the choice of the most beneficial financing sources which influence the reduction of debt cost and increase the operational earning capacity,
- financial risk effective management,
- adjusting the debt level to the changing situation and development needs,

- monitoring the current liquidity.

Enterprises, the activity of which requires the predominance of fixed assets, have to pay special attention to the enumerated relations. The telecommunication sector, the activity of which requires considerable investments in infrastructure such as cable tracks, relay stations, transmitters and server rooms, is such an industry. The fixed assets of this kind are indispensable for providing the services and therefore difficult to be replaced, which influences both the financial structure and the risk of conducting an activity.

High capital intensity of entities in this sector creates potential consequences. High share of fixed assets in the balance increases the enterprise assets stability as the fixed assets are less prone to the market fluctuations compared to current assets. A stable system serve its basic roles that is: effective resources allocation from the sparing to the investors, correct price adaptation and effective financial risk management as well as flexible absorption of real and financial shocks (Schinasi, 2006). Admittedly, the high share of fixed assets can decrease the liquidity, but at the same time it increases the assets stability, which means higher security in long-term liabilities.

High capital intensity forces telecommunication enterprises to seek for external financing, often in the form of long-term bank credits or bond issue. The research show that telecommunication businesses have a tendency to finance with debt, which influences their debt level (Harris and Raviv, 1991). The increased debt can result in higher financial cost but also brings tax profits by deducting the interests from the tax.

Moreover, high level of fixed assets with the low share of current assets, influences the telecommunication enterprises' liquidity, which when in need can face problems of changing the assets for money. The research suggests that such enterprises often have a lower current liquidity indicator (Whited and Wu, 2006). An increased financial risk is the consequence as it is more difficult to deal with current liabilities.

High capital intensity can also influence the lower return on assets (ROA), with fixed assets not generating short-term, direct profit. In the long-term, however, the stability of the fixed assets enable gaining stable income, which are less prone to short-term market fluctuations. Effectivity indicators, such as asset profitability are difficult to compare with enterprises of lower capital intensity in this industry (Damodaran, 2012).

The telecommunication industry is subjected to a fast technological development which might cause a quick fixed assets value depreciation. The cost of amortisation highly influences the financial results (Brealey, Myers, and Allen, 2017). As a result enterprises constantly need to invest in infrastructure modernisation to keep up with competitiveness and operational effectiveness.

With the prevalence of fixed assets, the assets structure of telecommunication enterprises may increase their financial stability, especially in the long-term. High level of debt, typical for capital intensive industries, is justified with higher security resulting from owning assets of high value. Nevertheless, capital intensity increases the risk connected with the necessity to upgrade the infrastructure and high financial costs. To minimise the risk, enterprises take advantage of long-term, fixed rate financing, which guarantee the cost stability (Graham, 2000).

Therefore, it is indispensable for the financial stability to keep balance between the assets liquidity and timeliness of the capital. On one hand, enterprises need appropriate liquid assets to ensure the ability to pay current liabilities, on the other, an appropriate regulation on the timeliness of the capital, which means the lasting of assets and liabilities harmonisation, is indispensable for minimising the financial risk and preserving the balance structure effectivity.

Preserving a high level of liquid assets, such as money, accounts receivable or stock, allows the enterprise to react for sudden financial needs. Proper liquidity decreases the risk of payment backlogs and enables dealing with unplanned expenses (Ang and Smederna, 2011). It is often emphasised in the literature that high assets liquidity increases the enterprise's security, however, an excessive concentration of liquid assets may lead to the profitability decrease (Van Horne and Wachowicz, 2008).

From the perspective of the finance management theory, excessive liquid assets can be treated as assets "waisted, which do not generate expected return rates and can negatively influence the profitability of the enterprise (Brealey, Myers, and Allen, 2017). Therefore it is essential to balance the level of liquid assets in a way that it does not negatively affect the long-term development aims.

Numerous authors point to the importance of capital timeliness adjustment, which means that long-term assets should be financed with the appropriate maturity date capital (Harris and Raviv, 1991). In case of improper adjustment there is a risk of refinancing – situation, where the enterprise is forced to find new sources of financing before it turns back the means used for financing the long-term assets. Such a situation increases the financial uncertainty and may influence the enterprise's liquidity.

A financial structure, which preserves the balance between assets and liabilities of a similar maturity date, diminishes the risk of loosing the liquidity and minimises the influence of interest rates changes on financial costs. On the other hand, short-term liabilities can become a cheaper source of financing, although they generate higher risk connected with the quick payoff necessity.

Preserving the balance between assets liquidity and capital timeliness requires precise financial planning and forecasting of the cash flow. Enterprises often make use of financial indicators such as current ratio indicator, quick ratio indicator and

rates financial cover indicator, to monitor their capability of paying the current liabilities and evaluate their financial stability in respect of the long-term liabilities.

Unacceptably low level of liquid assets may result in problems with paying the liabilities and excessively high share of liquid assets can limit the operational effectiveness of an enterprise. The examples of industries like telecommunication or infrastructure, where long-term stability is crucial, show that enterprises achieve stability through mixed financial strategies, combining the long-term equity with credits and loans of different dates of redemption (Damodaran, 2012).

## **2. Materials and Methods**

Initially the research encompassed all telecommunication enterprises listed on Warsaw Stock Exchange. There are only ten of them. One of the partnerships, however, (EASY CALL PL S.A.) has not gained any income since 2023, therefore it has been excluded from further analysis, and the research includes financial data of the following business entities:

- CYFROWY POLSAT S.A.,
- ORANGE S.A.,
- KORBANK S.A.,
- VEE S.A.,
- TELESTRADA S.A.,
- INTERNET UNION S.A.,
- TELGAM S.A.,
- DG-NET S.A.,
- AITON CALDWELL S.A.

The following partnerships offer a number of services and products such as: paid television service, telecommunication service, stationary and mobile Internet and general Internet media as well as a call centre.

To determine the asset and capital structure the assets and liability balance structure has been calculated (data for the II quarter of 2024), and compared according to timeliness. The research depicted the level of integrity of the group/industry. Subsequently, financial risk evaluation has been conducted.

The most basic methods of determining the level of financial security are widely known financial liquidity indicators, defining the ability of an enterprise to pay short-term liabilities. Sustaining the financial liquidity is an essential condition for proper functioning of a business entity, especially in the time of crisis (Ang and Smedana, 2011; DeAngelo and DeAngelo, 2007). The most popular indicators include: current liquidity indicator, quick liquidity indicator.

CR, current ratio informs about the enterprise's ability to pay current liabilities, as it points to the extent the current assets can cover the current liabilities. The indicator should value between 1.3 – 2. The optimal value is often accepted by banks on level 2.

The quick ratio indicator determines the number of times the high liquidity current assets that are at the enterprise's disposal, cover its current liabilities towards third parties. The indicator is corrected by the least liquid current assets compared to CR indicator, such as stock and prepaid expenses. Optimal level of the indicator should equal 1.0 that is current liabilities should be entirely covered by current high liquidity assets. In case of enterprises characterised by quick assets circulation (e.g. trading) the norm is lowered to 0.7.

Moreover, the equity structure and capital structure relation has a great influence on the enterprise's financial security. The analysis of the relations is based on defining the abilities to cover the long-term assets with equity (the first level financial cover) and long-term equity with long-term capital: total assets and long-term borrowed capital (the second level financial cover) (Scarabot, 2001; Handayani and Darma, 2018).

The first level of financial cover (the equity to fixed assets ratio): the indicator is the relation of the enterprise's equity to fixed assets. The value of the indicator should be higher than 0.6, which assures the payoff of the accounts receivable even in case of bankruptcy.

The second level of financial cover (the equity and long-term liabilities to fixed assets ratio): the indicator is the relationship between long-term own and borrowed capital of the enterprise to fixed assets. The value of the indicator should not fall under 1, which would mean financing the fixed assets with short-term liabilities and therefore increase the enterprise's risk.

### **3. Results**

The analysis of the fixed assets share in the equity of the researched enterprises, confirms a low level of flexibility in the equity structure in telecommunication industry. When it comes to a general structure indicator a strong homogeneity of the industry is noticeable.

On average the share of the long-term equity equals 80% (the lowest result equals 48% and the highest was achieved by enterprise with the 95% indicator). It appears, however, that deeper analysis to some extent "disrupts the above statement. Part of the enterprises, especially big ones, within the fixed assets show a significant part of the assets as the so called intangible assets, and the real share of the material equity is significantly lower.

**Table 1.** Assets and capital structure indicators, financial coverage and financial liquidity indicators and their statistic characteristics.

	Fixed assets/Total assets	Property, plant and equipment in Total Assets	Intangible Assets in Total Assets	Equity in Total Assets	Long term liabilities in Total Assets	1. Degree of financial coverage	2. Degree of financial coverage	Current liquidity	Quick liquidity
<b>AIT (AITON)</b>	70.34	2.10	56.68	64.29	0.02	0.91	0.91	1.92	0.60
<b>CPS (CYFRPLSAT)</b>	76.26	20.22	48.27	42.96	40.31	0.56	1.09	1.65	1.24
<b>DGN (DGNET)</b>	81.65	76.30	0.03	20.43	19.61	0.25	0.49	0.33	0.20
<b>IUS (IU)</b>	93.53	90.50	1.67	65.89	22.40	0.70	0.94	0.66	0.46
<b>KOR (KORBANK)</b>	77.41	76.68	0.08	56.18	27.26	0.73	1.08	1.84	1.16
<b>OPL (ORANGEPL)</b>	86.36	49.17	25.18	51.64	31.62	0.60	0.96	0.82	0.74
<b>TLG (TELGAM)</b>	93.10	92.66	0.00	57.76	4.21	0.62	0.67	1.97	-8.11
<b>TLS (TELESTR)</b>	48.33	39.64	8.69	74.63	0.00	1.54	1.54	2.04	2.01
<b>VEE</b>	94.64	0.79	4.11	60.58	25.13	0.64	0.91	0.97	-0.73
Mean	80.18	49.78	16.08	54.93	18.95	0.73	0.95	1.36	-0.27
Standard error	4.90	12.12	7.40	5.25	4.82	0.12	0.10	0.22	1.01
Median	81.65	49.17	4.11	57.76	22.40	0.64	0.94	1.65	0.60
Standard deviation	14.70	36.36	22.21	15.74	14.45	0.35	0.29	0.66	3.04
Sample variance	216.11	1321.77	493.13	247.71	208.89	0.12	0.08	0.43	9.22
Kurtosis	1.99	-1.68	-0.10	2.46	-1.23	4.07	1.82	-1.74	7.46
Skewness	-1.29	-0.23	1.23	-1.35	-0.22	1.58	0.53	-0.43	-2.65
Range	46.31	91.87	56.68	54.20	40.31	1.29	1.05	1.71	10.12
Minimum	48.33	0.79	0.00	20.43	0.00	0.25	0.49	0.33	-8.11
Maximum	94.64	92.66	56.68	74.63	40.31	1.54	1.54	2.04	2.01

*Source:* Self study on the basis of [biznesradar.pl](http://biznesradar.pl) portal data.

Regardless of the equity structure, a significantly less homogenous financial structure in the industry is worth noticing. The share of the capital in financing the assets oscillates between 20 and 75 percent, and an average indicator for the industry is 55%, so definitely lower than fixed assets in the total assets. The level of financing with long-term borrowed capital is also relatively low.

Such a basic data analysis assumes, that the industry does not show proper asset to capital relation, which is prone to be reflected in a negative active and passive balance sheet adjustment valuation, and potential financial liquidity valuation characterising the industry.

A highly capital intensive telecommunication industry is not capable of securing the norms connected with covering the fixed assets with equity. Only one enterprise out

of the researched group achieved a higher than one result and this is a company which showed the lowest share of the fixed assets in total assets, with the highest equity financing at the same time. The rest of the enterprises achieve unsatisfactory results: they cover on average about 79% of the fixed assets with equity. In one case it is only 25%.

Because the industry faces investment pressure and the infrastructure is the basis of their potential competitiveness – the long-term debt should be adapted to finance the needs. It will be reflected in the second level financial coverage indicator, which shows if the equities, extended by long-term borrowed capital, are able to finance the long-term enterprise equity. In certain cases taking the long-term financing into account (with a strong correlation to the size of the enterprise) improve the observed asset to capital relations with an average score 0.95 for the group.

Such situation causes the weak short-term liquidity of enterprises, for it means they use short-term capital to finance investment needs. Essentially only three results can be treated as satisfactory. The research has confirmed that telecommunication enterprises listed on Warsaw Stock Exchange are of an asymmetric asset to capital structure. They are burdened by high share of fixed assets and at the same time insufficient internal financing, even – in a broad sense – long-term financing.

#### **4. Discussion**

A question has to be asked whether such a situation (especially if it is of a permanent character) is really dangerous? And if yes, then for whom? For the enterprises themselves or rather their market environment? Moreover: are the enumerated risks another reason for growing tendencies of the industry monopolisation?

Telecommunication enterprises in Poland, similarly to many other countries, are characterised by a specific financial structure, which results from both high investment needs and the specifics of the market competitiveness. Telecommunication industry requires significant capital investments, which are indispensable in keeping the competitiveness and infrastructure growth. The examples of such investments are: network modernisation (e.g., implementing 5G technology), development of cable and transmitter infrastructure, investment in software, security systems and server maintenance.

High investments are generally covered by long-term liabilities, which leads to financial structure incompatibility – often the fixed assets are not covered by equity or long term equity, but a short term debt. As a result enterprises face a permanent decrease in financial liquidity, and therefore a higher financial risk. It is emphasised in the subject literature that telecommunication enterprises have a tendency to keep a higher level of debt, which allows for a higher investment flexibility but diminishes the level of liquidity (Brealey, Myers, and Allen, 2017).

## 5. Conclusion

The balance between the liquidity and capital timeliness is fundamental for managing the financial risk in an enterprise. Inappropriate structure may lead to payment backlogs, financial difficulties and even to loss of liquidity and bankruptcy. The balance optimisation, according to the profile of activity and specifics of the industry, allows the enterprise to manage the resources effectively and gain long-term financial stability, which positively influences the condition of the enterprise and its external relations.

Insufficient financial liquidity and inappropriate coverage of the fixed assets with the equity are the typical features of the telecommunication sector resulting from its capital intensity and specifics of the competition. The market strength of the biggest entities allows them to survive despite of high level of debt and low liquidity, however, a growing market concentration arises the risk of monopolisation. To preserve the balance, there is a need for further observation and regulation of the market, what should assure an appropriate service quality and possibility for new enterprises to emerge.

Just like in many other countries, Polish telecommunication market is characterised by a high level of competition, but also a growing level of concentration. Big providers dominate the market due to higher long-term investment financing possibilities, which strengthens their prevalence over smaller entities. The enterprises can afford to keep lower liquidity, depending on stable income from long-term agreements and a high number of subscribers.

For strong enterprises such as the biggest providers in Poland, the short-term liquidity does not have to be a priority, as they are able to negotiate favourable credit and refinance conditions. The market strength allows them to shift parts of their costs on clients, as a result they are able to finance the investments and keep operational profitability despite of high debt.

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